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DISEASES OF THE NERVOUS SYSTEM

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

CONTENTS:

REHABILITATION OF THE MENTALLY-ILL VETERAN 205
Samuel Paster, M.D., Memphis, Tennessee

TYPES OF DEPRESSIVE REACTIONS 212
Stephen Weiz, M.D., Dallas, Texas

HEREDITARY AGENESIS OF THE ULNAR AND MEDIAN NERVES 217
J. Floyd Cannon, M.D., Salt Lake City, Utah

A PLAN FOR IMPROVING TREATMENT OF PSYCHIATRIC PATIENTS IN GENERAL HOSPITALS 220
Joseph L. Fetterman, M.D., Cleveland, Ohio

NEED FOR OBJECTIVE DESCRIPTION OF CLINICAL STATUS IN TREATMENT RESEARCH 226
Daniel I. Malamud, Fort Knox, Kentucky

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DISEASES of the NERVOUS SYSTEM
(PUBLISHED MONTHLY)

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

Rehabilitation of the Mentally-ill Veteran

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I.

One of the greatest challenges facing this country is the problem of the rehabilitation of the neuropsychiatric casualties incurred during the last war. At the beginning of the second world war nearly one-half of the number of beds in Veterans Administration hospitals were occupied by mentally-ill veterans of World War I. As a result of the lessons learned from the first world war, a screening system was set up designed to prevent induction of mentally unstable men into the armed services during the last war. One hundred and seventy-eight of every thousand men called up by the draft were rejected as mentally unfit for service in the Army. Some military authorities thought that the problem of psychiatry in the Army was largely solved by the careful elimination of the mentally unstable individuals at the time of induction. However, as was soon discovered, the solution of the problem was not as simple as it seemed. Nothwithstanding this screening process, the rate of discharge from the Army for mental disability in 1944 was twice that of 1918. By 1945, close to one million soldiers had been discharged from the Army for psychoneurosis and other behavior disorders. Of these, seven to ten percent were diagnosed as insane.

Since World War II was so much greater in scope and duration, it was generally expected that the total number of physical and mental casualties would greatly exceed the number who were disabled in the first world war. The reason for the fact, however, that the rate of mentally-ill soldiers was double that of the first world war was not immediately perceived.

In order to approach the problem of rehabilitation with understanding, let us glance at the major factors that determined the mental stability of our soldiers. The transition from civilian to military life had been difficult. Millions of men had been compelled to leave their families and friends, sever deeply rooted emotional ties, change their occupations and submit to rigid discipline. In order to achieve unity of purpose each soldier had to submerge his individual will and undergo a radical change of personality. These factors constituted the first stress to which our soldiers were subjected. A significant proportion of mentally incapacitated soldiers came to the fore at this stage. Some of them had been mentally ill prior to entry into the service. For some reason or other they were able to slip through the screening process at the induction stations. But the majority of these men were not mentally ill. They were unstable individuals suffering from a sense of inferiority and insecurity; men with little endurance, in whom the abrupt change of environment and implied threat to their security precipitated a nervous reaction. Almost

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uniformly their histories disclosed evidence of emotional instability and strife between parents, a background of broken homes, early life in the impersonal atmosphere of orphanages, a turbulent childhood filled with frustration and fears. Some of them revealed a past devoid of parental affection. Others revealed a history of abnormal attachment and over-solicitude on the part of one or both parents. It was quite surprising to learn how many of our young men had never learned to stand on their own feet and how deep was their dependence on their families, especially their mothers.

Most of the soldiers who reached the battlefield were, however, mentally sound. They had responded well to the call to arms. To many, the organized effort of a vast number of people, constituting the Army, had a peculiar psychological appeal. There was the promise of adventure, the upsurge of a sense of power born of the identification with the group and confidence-inspiring leaders. In many, the thrill of advancement and glory satisfied unconscious needs they had been unable to fulfill in civilian life. During the preliminary period of training they learned to face privations and danger.

Yet these men differed from the ones who had fought an apparently similar battle during the first world war in that they were less equipped psychologically to face danger and death. For twenty-odd years the younger generation of Americans, in contrast with the young men of the totalitarian states, had been inculcated with the ideals of the sanctity of human life. Overnight these men were forced to discard abruptly the traditional values of peace and accept the very opposite ideology of war. In addition, the motivation to fight was not as great as during the first war. The men knew that there was a grim job ahead of them; they realized intellectually that the struggle was inevitable. But the emotional upheaval that had previously impelled men to fight a "war to end all wars" was at this time lacking. No one experienced a sense of exaltation—a vision of a beautiful world that would follow the gigantic struggle.

Thus, poorly equipped emotionally, our soldiers faced a danger far greater than our armies faced in 1918. Our soldiers were exposed to debilitating diseases and drastically different climatic conditions. They experienced a great sense of isolation among strange people in far away places. The weapons were of greater destructive power and the methods of fighting, especially in the jungle, were more terrifying. These demands corroded the personality of the individual and gradually undermined his strength. Under such circumstances intolerable fear was the soldier's constant companion.

A terrific inner conflict was experienced by everyone at the front. There was an urge to continue to fight, to fulfill an obligation imposed upon our men by their families and their communities. There was the mounting hatred for an enemy who was believed to have caused it all. But the most potent force that impelled these men to go on was the feeling of duty and loyalty toward their friends who fought beside them or who had fallen behind them.

These factors were counteracted, however, by a far greater force—the instinct of self-preservation and the will to survive. With the danger mounting and with disease, exhaustion and fatigue gradually undermining their resistance, the soldiers were overcome with an overwhelming, passionate desire to live; to get away from it all; to escape. In the face of the continuous external danger and internal agony, many finally succumbed and became mentally ill. One could see these men at the field hospitals, particularly after a heavy engagement, trickling in, overwhelmed with fear, tense, tired and forlorn. Their nerves were raw and their bodies trembled. Their thinking was distorted. Their dreams were filled with battle and death.

The personality disintegration of the patients whose illness was precipitated chiefly as a result of prolonged exposure to danger, the elements, and disease, was not generally great. It was often checked right at the front by the application of comparatively simple forms of treatment such as rest, food, sedation, and suggestive therapy. Many soldiers were able to overcome their panic reactions, regain emotional equilibrium, and

return to the battlefield. But where deeply ingrained neurotic patterns were reactivated, the application of prolonged intensive psychotherapy was required. Such severely affected men were usually unable to carry on their duties, even on limited service, and were evacuated to the States.

II.

An account of the treatment of psychoneurotic and psychotic casualties in Army general hospitals during the war, constitutes a great and remarkable story of achievement. Most of the nervous soldiers who arrived in our hospital appeared anxious and bewildered. Many of them were depressed. All of them had lost their self-confidence and sense of security. They were tired, anxious, and unhappy. They resembled frightened and helpless children who having lived through terrifying experiences looked for affection, security and, above all, rest. But they could not rest. They were tortured by a sense of guilt for having killed human beings and felt that they had betrayed their buddies who were still fighting. They attempted to cast into the depth of the unconscious, the terror and emotional upheaval that filled their minds, but with little success. In addition, in view of the stigma attached to mental illness, they felt ashamed and were afraid to face their families and friends. Unable to solve the inner conflict, they would become irritable and resentful. The accumulating tension, like steam that is not permitted to escape, would finally break through at the slightest provocation and result in an explosion.

In order to relieve their anxiety and prevent fixation of their symptoms, treatment was essential. However, in view of the large number of patients that kept pouring into the Army hospitals, individual treatment was out of reach. At Kennedy, therefore, we instituted group psychotherapy in the early months of 1943. During group treatment we attempted to encourage the patients to talk freely about their combat experiences, thus affording them the opportunity for the much needed emotional release. In the course of the subsequent sessions, we urged them to examine their complaints critically, and, in simple terms, explained to them the meaning of these symptoms. We attempted, at the same time, to resocialize them by utilizing every activity available in our hospital. A concerted effort was made to help them regain independence and to abandon the need for emotional support. In time their fears lessened and their terrifying nightmares disappeared. Gradually they learned to face their morbid memories with equanimity and look at life with renewed confidence and hope.[1,2]

III.

While the war continued, all our efforts were concentrated on maintaining an efficient military force. Our reconditioning program was geared to salvaging as many men as possible in order to render them once again useful in some capacity in the scheme of military defense. With the cessation of hostilities new problems arose. The Army hospitals began to close one after another and the burden of care and treatment of the mentally ill was shifted to the Veterans Administration. Kennedy, like many other general hospitals, was taken over by the Veterans Administration. Those of us who remained on the staff of the hospital were afforded the opportunity to participate in the new phase of the care and treatment of the mentally ill veterans.

We discovered then that, in addition to the psychoneurotic soldiers, many of those discharged "on points," without any mental or physical disability, were unable to adjust to civilian life. They began to report to our mental hygiene clinic, seeking help. They complained of being irritable and restless and declared that they were not able to get along with their families and friends. Many claimed that they were too nervous to "stick to their jobs." Thus, the question presented itself: Have the so-called normal soldiers really come out untouched by the internal agony and external terror they had faced all those months and years away from home? The men who fought on and on with grim determination and miraculously escaped mental breakdown and physical deformity—are they the same as they were before the war? The clarification of this question is important inasmuch as these men constitute the largest group of the returning veterans.

The fact is that many of the veterans came home laden with feelings of guilt for having had to kill human beings. They are haunted by memories of disease, exhaustion, and the prolonged threat of death. They remember reading about the lucrative jobs at home, and now, faced with the complete indifference of the civilian population, they feel unwanted and betrayed. The Army deliberately trained them to reactivate their latent aggressive tendencies. Now that they returned home, they are still aggressive, irritable, and restless. The grim determination with which they fought in battle is still with them, yet having been deprived of their individuality and personal incentive, they are now bewildered and filled with indecision and doubt. The very atmosphere of the home, previously seeming so unattainable and alluring, now seems, after years of strain and excitement, disappointing and dull.

These men became intellectually mature in a brief span of time. Emotionally, many of them, however, regressed to a level of behavior usually characteristic of the adolescent period of growth. They developed definite character changes. Sometimes as a result of deeply rooted hostility but more often as a result of pent-up emotions, they are quick-tempered, explosive, and quarrel easily. They are often self-accusatory and experience a feeling of guilt for real or imaginary failures. They tend to project their sense of failure into others, especially into those civilians who did not serve in the armed forces. They are friendly with one another and prefer each other's company. As long as these men lived under the stress of great danger, these characteristics were of great value to them. It is obviously disadvantageous, however, to maintain such attitudes in peaceful surroundings. Most of the veterans realize this and strive to regain a normal outlook on life. The speed with which they regain normalcy depends on their basic personality structure, the degree of disintegration sustained by them, and the presence of external factors favoring recovery. The majority of the so-called normal soldiers have achieved a satisfactory adjustment with a minimum of aid. How large a number of men who had been in combat will be unable to harness their impulses and regain emotional equilibrium without help is, however, at present impossible to determine.

What will continue to be the relationship of these men to their wives and children and their social and occupational associates? There is no doubt that in some the intense emotions, activated by inner conflicts and feelings of guilt related to battle experiences, may become displaced. They may become attached to new experiences and become a part of emotionally charged new relationships, such as the family, social and industrial institutions. If these new patterns of behavior become fixed, we have the foundation of a lifelong maladjustment. This may, in turn, lead to the beginning of uncontrollable indulgence in alcohol as testified both by studies of many victims of the first world war and the newly emergent problem of alcoholism at this time. It is already reflected in the steep rise in the rate of divorces. Regressed to the stage of adolescence, many of these men are actually competing with their children instead of helping them to grow. These patterns of explosive and unpredictable behavior foster insecurity, distress, and indirectly inhibit the development of character in the children of these men, during the formative period of their growth. It is because of these morbid potentialities that psychiatric aid becomes an imperative part of the process of rehabilitation of the nervous veterans. The unconscious pathological mechanisms at work in the minds of these men must be checked before they become fixed into chronic reactions and become firmly intergrated into new and undesirable patterns of behavior.

IV.

The Veterans Administration, cognizant of the problem, has established a Medical Rehabilitation Service. General Hawley, Chief Medical Director of the Veterans Administration, declared that he was determined "to offer every wounded veteran the opportunity for psychological, physiological, social and economic rehabilitation." He also emphasized that the program must begin in the

hospital. Intensive pre-vocational training is now being established in most veterans' hospitals. The United States Armed Forces Institute, which had performed an outstanding job in the educational field during the war, has made available its courses of study to the Veterans Administration.

At Kennedy every patient is given the type of treatment most suitable for his case. This ranges from individual and group psychotherapy, narcosynthesis and hypnosis for the psychoneurotic to narcotherapy, electroshock, and insulin shock therapy for the psychotic.

A sympathetic attitude permeates the atmosphere of the mental wards of our hospital. The process of rehabilitation is begun early while the patient is still ill. Lying in bed inactive, gazing at the ceiling day after day, absorbed in morbid retrospection is not conducive to recovery. Both the psychoneurotic and the psychotic live a full and active life at the hospital. In the morning, out in the open, the patients spend thirty minutes performing calisthenics. Invigorated and alert, they return to the wards where the doctors hold inspection, listen to their complaints, grievances and various problems. Those whose course of treatment has been completed are dispersed into various activities such as occupational therapy shops, swimming pool, gymnasium, or pre-vocational shops.

In the evening, under the supervision of Special Services, they participate in dramatic activities. They write, produce and act in their own plays, utilizing the play as an outlet for their conflicts and problems that trouble them most.

The program of physical and mental rehabilitation is woven around one principle—to help the patient regain confidence in himself. Even the confused psychotic patient is urged to do something along the lines of creative effort. On the ward the severely-ill patient sits alone apparently oblivious of his surroundings. But in the shop his interest is gradually aroused, and he begins to watch others busily engaged in constructive work. Soon he, too, is tempted. Encouraged by the instructor, he may make a feeble attempt to do something. Before long he accomplished a simple task and wins profuse praise. In time he begins to recognize his own importance and to appreciate the value of effort.

Following the termination of specialized treatment, both neurotic and the psychotic patients are transferred to a special rehabilitation ward. There, the psychologists subject them to a battery of tests in order to determine their level of intellectual function, degree of emotional stability, vocational aptitudes and interests. They are then sent to respective shops for pre-vocational training. In these shops the patient can choose for himself the type of work he wishes to do and, most important, find out whether he is capable of doing such work. Later he may follow up his pre-vocational experience with "on-the-job" training. He may take up various courses of study ranging from automotive or radio repair, watchmaking, printing, photography, plastic and metal work, and the arts, to subjects such as English, social studies, typewriting, bookkeeping, etc. Upon discharge from the hospital he may, through close cooperation with local schools and universities, further his educational progress along lines most suitaable for him.

One of the most important phases of our work is accomplished by the Social Service Department. The social workers, under the supervision of the ward doctors, conduct group discussions with the patients in an attempt to orient them to the social problems they will face on return to their family. They hold conferences with the immediate members of the family, advise them concerning the nature of the patient's illness, and counsel them with regard to their attitude toward the patient. This information given to the relatives is of crucial importance. The psychoneurotic and the psychotic patients have one characteristic in common: preoccupied with their symptoms, they tend to slump into chronic inactivity. Both must be encouraged to become interested in the world about them and resume some constructive activity. They differ from each other, however, in that while the nervous veteran can eventually regain the capacity to work he possessed before the war,

this may not be the case with the men who suffered from a psychotic reaction. The veteran who has recovered from a psychosis may also attain a satisfactory adjustment. His relatives, however, must be on their guard and not urge him to reach beyond his ability.

Prior to discharge from the hospital, the patients are examined by a board consisting of a psychiatrist, psychologist, and social worker who, on the basis of their assembled information and the patient's pre-vocational record, make proper recommendations as to his further training.

Following discharge from the hospital, the Social Service Department continues contact with the social agencies of the veteran's respective community to facilitate the local agencies in their efforts to adjust him to his family and his work. For those veterans who are able to work but still need the help of a psychiatrist, mental hygiene clinics are being made available.

How the team consisting of a psychiatrist, psychologist, and social worker functions is illustrated in the condensed accounts of the following two cases:

Case 1. This patient, a twenty-five year old former infantry lieutenant, was referred to our Out-Patient Department by a private physician. He appeared tense, anxious, and depressed. He spoke rapidly and complained of intense pain in his heart accompanied by a sense of panic and a feeling of impending death. These symptoms appeared about two months after he returned from the Army.

Physical examination revealed a well-developed and well-nourished athletic individual. Thorough studies of his heart disclosed no abnormalities. His story was as follows:

He is an only son. His father, a stern and domineering individual, is a successful salesman. His mother is gentle and submissive. The patient has always been afraid of his father but is extremely attached to his mother. Prior to entering service, he attended a liberal arts college. He entered the Army as an enlisted man, rose rapidly and was promoted to a lieutenant on the battlefield. He participated in some of the toughest campaigns in the Pacific but escaped apparently unscathed. Although he was all keyed up, he was very happy when he returned home. The very night he returned his father handed down the decision that the patient was going to be a salesman and told him that he had already assigned a territory to him. The patient never liked selling but obediently submitted to his father's will. He felt very unhappy and following several weeks at work failed completely to show any signs of success. He was tempted to revolt and abandon his work but feared the violent arguments of his father. He toyed with the idea of leaving the family but had great conflicts concerning the fact that he would have to leave his mother. It was at this time that he began to experience the pain in the region of his heart and recurrent attacks of anxiety. As a result of these attacks he was compelled to quit work.

During the psychotherapeutic interviews, the patient gained insight into the factors that motivated the development of his symptoms and gradually regained his composure. He was then referred to the psychologist who reported that he had an IQ of 140. He revealed a predilection for computational, scientific, and literary achievements, and scored lowest on the vocational aptitudes concerned with extroversion, persuasiveness, and ability to form social contacts. A conference was then held with the patient in which all the assembled material was reviewed and his personality traits and potentialities evaluated. It is hardly possible to describe the change in the patient's demeanor following the completion of the workup at our clinic. His symptoms abated. He no longer appeared bewildered. He claimed to have gained a sense of direction. He resolved to leave his home and enter college with the determination to pursue the study of biological sciences and with the hope that he would ultimately become a member of the teaching staff of a university.

Case 2. A thirty-one year old veteran was admitted to our hospital from the city jail. He appeared restless and spoke in a flighty and grandiose manner. He said that he was a salesman and declared that he had been very successful. He boasted that he had studied medicine, law, and business administration. He declared that he did not love his wife and that he firmly resolved, despite the fact that he had two children, to obtain a divorce from her.

His wife was interviewed. She stated that he had been an ideal husband, devoted father, and a good provider before he entered the Army. She said that on his return home, he appeared jittery, restless, and could not sleep. He resumed his work early and did very well financially. She noticed, however, that he was not the same. He began to stay away evenings and frequently returned home intoxicated. He began to neglect his work and became utterly irresponsible. The wife was told by some friends that they saw him in the company of other women. Violent arguments ensued, but he could not be brought to his senses. Following a drunken escapade during which he threatened her life, the wife called the police who arrested him and took him to jail. After consulting her family, the wife decided to divorce him. The police, meanwhile, transferred the patient to our hospital for mental observation.

Following a period of several days in the hospital, the patient's mood changed from that of elation to a profound depression. He became self-accusatory, admitted that he had been drinking heavily, and claimed that alcohol helped him to submerge the horrible memories of war. He said, "My nerves tied me up. I fly all to pieces. All night I get up and walk and walk. . . . I want to live, if I could only forget all that. I can't enjoy myself. I just want to keep going . . . keep going. I know we had to kill them or they would kill us. It had to be done. But it bothers me during the day and I hear them at night. They holler and holler and scream and pray and cry. . . . A lot of my buddies started drinking and I started, too. But even drink desn't help me. Please don't tell anything of what I told you to my family."

This patient was treated several months, regained his equilibrium, realized that he had been mentally ill, and was finally reunited with his family. A conference between the social worker and his employer resulted in the patient's return to his job.

The first difficulty many of the nervous veterans encountered on their return home was misunderstanding and lack of sympathy on the part of their relatives. The relatives have been unable to conceive why these men are so unpredictable, defiant, and explosive. Out of sheer exasperation they begin to reproach the veterans for their lack of consideration. As time goes on, an almost unsurpassable barrier arises between the veterans and their relatives as a result of which these men frequently leave home.

The second major trial the veterans face is adjustment to work. Having suddenly been thrown back into the competitive civilian life, they are once again entirely on their own. They feel inadequate and bewildered. They attempt to work but are often restless and quit on an impulse of the moment. Not all employers in industry are tolerant and understanding. Many look with misgiving at the psychoneurotic applicant for work. Many do not realize the socially morbid potentialities that lurk behind the attitude of "Why should we hire the crippled and the nervous when we can get an all-round healthy man?"

In order to succeed in carrying out our rehabilitation program successfully, a change in attitude toward the soldiers who have suffered a nervous breakdown is necessary. It is important that the public become acquainted with the facts and fancies related to the problem. Members of the community must not ask the veteran on what basis he was discharged from the Army. Churches, state, and social agencies should intensify their efforts and aid the rehabilitation and reabsorption of these men into useful pursuits. Psychiatrists should be consulted by employers concerning the various mental disabilities with a view of enabling the veterans—the mentally-ill, the physically maimed, and the so-called normal individuals—to adjust best to their new jobs. These men must regain confidence in themselves and learn to look fearlessly into the future. We, therefore, must treat them with tolerance. We must convince them that we are with them wholeheartedly in their fight to regain mental health and resume a useful place in society.

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AUTHOR'S NOTE: This article is published with permission of the Chief Medical Director, Department of Medicine and Surgery, Veterans Administration, who assumes no responsibility for the opinions expressed or conclusions drawn by the author.

Types of Depressive Reactions

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Since the separation of manic-depressive psychosis and schizophrenia by Kraepelin and his establishment of diagnostic criteria characteristic of each group, attempts have been made to formulate more sharply the diverse forms of depressions. In connection with schizophrenia, as time went on, new concepts developed and gradually refined the descriptive diagnostics of Kraepelin. As far as the depressions are concerned, the publications concern themselves more with the varieties and types of this illness.

There is little doubt of the fundamental correctness of the original Kraepelinian syndrome. Depression is an illness which, in its classic form, is made up of dejection of mood, psychomotor retardation, i.e., general slowing down, and poverty of ideas in the form of unproductive slowed down thinking. In addition, a depressed patient usually has a tendency to make statements with a trend to self-depreciation, self-rejection, or even self-accusation. This represents the typical clinical symptomatology which in some intensity is expected to be present in every case. Kraepelin was well aware that there are depressions not falling entirely into this group and not conforming in their entirety to this general pattern.

The agitated depression shows dejection of mood but certainly also an increase in general psychomotor activity. Such a break in the classic triad required some sort of explanation and to do justice to the unusual forms Kraepelin introduced the concept of the mixed forms of manic-depressive psychosis. Although this classification was generally accepted, it did little to solve the fundamental issue. On the contrary, it opened the road to the question whether retardation or the mood disturbance is the most characteristic and essential symptom of a depression. We look upon the change of mood as the fundamental factor, although in the milder forms a lack of zest is all that may be evident and bodily complaints may mask even that.

There is no definite or generally accepted concept of what the term mood signifies. Those who compare it pictorially to the climate of a region, as contrasted to the weather of the place, are figuratively accurate in the essential element of mood. It appears to be a basic and lasting phenomenon prevailing as a characteristic attribute of a person. It may be assumed that bodily functions of all types and the physiology of every organ and the general biological activities of the organism fuse together and in some way reverberate and make themselves felt in consciousness as a dim and diffuse awareness which is difficult to qualify except in terms of well-being and ill-being. This free, unhindered flow of vital activities furnishes the positive, constant affective background of our consciousness. Without reference to an object as such, it is a pure reverberation of bodily happenings. At this stage, difference cannot be established between affective states and sensation.

Nor is it possible at this level of primitive consciousness to separate zest and libidinous tinge from drive. One seemingly touches the level of the earliest psychosomatic form of existence. Accepting such a vague and speculative conceptual formulation of mood, it may become somewhat more intelligible why depressed patients often complain of bodily discomforts, such as, heavy feeling in their stomach, a load on their body, fatigue, insomnia, heaviness and of similar bodily reflections. The sadness of the depressed patient has the quality of immediateness in it which allows the listener to grasp readily the dejection, the downheartedness, the hopelessness of the patient; that feeling of being "down in the dumps" which cannot be experienced unless one has had previous unhampered knowledge of the joyfulness of life. Life, unhampered in its cheer, is libidinous and differs in this particular quality from life hampered. The ego instincts which serve the individual more along adaptive-perceptive activities cannot

satisfactorily substitute for the libidinous strivings although probably both evolve from a common source. If such an interpretation is permissible, changes in the functioning of the organism at this level would be accompanied by a change of mood.

Recognizing mood as a reverberation of the flow of life processes into consciousness, it is not difficult to follow Kraepelin in his original idea that depression is autogenous. There are few dissents to the assumption that it is a condition showing a constitutional tendency and arising in people who have a constitutional susceptibility. The nature of this predisposition is not known. We are inclined to believe that it is based on some unknown modification in the biologic foundation of the personality. It may be pointed out that the episodes often arise without precipitation, without any demonstrable provocation. It may recur in the same person, with or without a manic episode, again without provocation. The condition may come on overnight as it were, and the manic patient can change into a depression overnight. Even if a precipitating factor is found, its nature does not determine whether the ensuing attack is going to be a mania or a depression. The often quoted familiar propensity does not strike us in this light as a surprise. It should be said, however, that changes in the biologic foundation may occasionally occur in people without any constitutional inclination. We are at a loss to explain the occurrence of depressive phases autogenously created in people who themselves or their families never showed this tendency. For brevity, we prefer to call the autogenous depression the "Kraepelinian type," because he was the first to carefully outline and describe the classic manifestations of this illness.

Building upon this foundation, two questions are presented: 1. What is the possible nature of the processes responsible for the changes causing a fixation of the mood in the characteristic manner called depression? 2. What are the consequences of such a change for the person as they are mirrored in conscious personality? Little is known that will answer the first question. In spite of attempts to show certain physiological and chemical changes in functioning of the body, no one has touched upon essential mechanisms. On the other hand, general experience has shown that bodily illnesses of all sorts tend to reduce the available energy; the listlessness of the sick person is well known. Postulation of some sort of biologic shift in the organism does not imply that it is of a structural nature. It is more along the models of sleep, menstruation and hibernation that our thoughts move.

tioned. Everyone will concur that sleep,

Classic depression shares the tendency to recur with the other physiologic cycles mentioned. Everyone will concur that sleep, hibernation, menstruation, and a score of other biological manifestations are, although anchored in the constitution of the individual, subject to considerable modification both in their penetrance and duration through environmental influences. It is known that sleep can be postponed or might be impossible; that purely functional causes such as moving into a different climate, starvation, etc., may cause a temporary suppression of menstruation. Environmental causes can thus manipulate the realization of physiologic propensities. Let us transfer these examples to the discussion in question. The susceptibility to depression, too, can be conceived to be subject to influences by the life situations of the individual and further research is called for to establish the environmental factors capable of preventing its appearance and recurrences.

Furthermore, the duration of a biologic shift such as sleep and hibernation is open to environmental influences. The alarm clock set for any desired time will terminate sleep at will. The popular conception of groundhog-day, for instance, refers to the length of hibernation as determined by a purely environmental factor, namely, the fact whether the animal sees his shadow that day or not. Similarly, we can conceive the essential feature of the shock treatment to be such a manipulation of the duration of a biologic shift without actually having any influence upon its recurrence in time. We are reminded that life is not only a set of functions but also a process evolving in time. This vantage point will also serve as

we now turn to the second question.

The conscious personality becomes aware of the inability to project itself into time, to mobilize and activate its previously bountiful resources. The laboriousness of the depressed patient, his attempts to overcome his great handicap are everyday experiences of the psychiatrist. As soon as the patient succeeds in accumulating energy as the day goes on there is a seeming lightening up of his condition. It appears that the feeling of insufficiency complained of by the patient represents the self-conscious formulation of his inner state and furnishes the basis upon which his complaints of loss of interest and also the self-depreciatory, self-rejective, and self-accusatory ideas develop. Since we are dealing with a change in the flow of the drive, having that particular character called libidinous, its absence or its immobilization will create in the patient's mind the feeling that something must be wrong, something has gone wrong, it comes from within, it must be me. According to the ingenuity of the patient, his inner dynamics, the organization of his previous personality, these feelings are expanded, elaborated upon and presented to the family and to the listening physician as the *mea culpa, mea maxima culpa* (my sin, my greatest sin). There is no difficulty in accepting the occurrence of depression in a person of the open type of make-up in whom it is said to develop most characteristically. As a matter of fact, the above observations are in accord with the descriptions given for the appearance of autogenous depression in such people.

The Kraepelinian type obviously does not embrace all depressions. In other forms, in contrast to the well defined classic type, we are confronted with several heterogeneous categories, notably involutional depression, agitated-tension depression, and many of the so-called mild depressions. Depression with aversion and the reactive depression probably also belong in this group. These depressions have been the chief subject of post-Kraepelinian investigations. They stand out from the original pattern laid down by Kraepelin.

Kraepelin, himself, changed his mind, at least regarding the involutional melancholia, when he came to include it in the group of the manic depressive psychoses. This move started the ball rolling. Such an attempt is undoubtedly justified to the extent that in this second group, too, we are dealing with affective reactions. There are, however, several features which differentiate them from the classic type. The most outstanding difference is that, as a rule, in these patients we are dealing with a different personality. Instead of the mellow, open, syntonic make-up, we encounter the rigid, hard-driving, over-conscientious, perfectionistic, ambitious type of person. It is conceivable that the difference in the prepsychotic personality alone may account for the clinical variations. There may be a constitutional susceptibility but reacted to in a different manner in accordance with the original organization of the personality. Undoubtedly, the original personality is carried into any type of psychosis and colors its manifestations. It is undeniable that depressions showing some apprehensive and aversive features occur in a certain type of person, seemingly on an autogenous basis. This, at least in part, could be determined by how complete the immobilization of the drive is and how hard the patient tries to reach out.

There is, however, another possibility to which we are more attracted. An individual belonging to this group meets life in a way different from the open type. He cannot escape rubs, wounds and hurts. He has plans and the energy and the ambition to put them into effect. Such a person often is tense, driven, nervous. According to the social setting in which he exists, he experiences barriers which more or less block him. If such a person meets a situation representing to him an overwhelming loss or frustration, he is stymied, he is held up. Loss and frustration may be answered with the withdrawal of his interests in the outside world and its objects so that such a person now pulls his tentacles in, severs himself from the outside, abandons the emotional investments and charges he has built up, becomes overwhelmed by the magnitude of the task or his failure and develops feelings of regret, feelings of disappointment, feelings of

threat, feelings of catastrophe. As a result of the blockage and frustration of the drive in its outward push it will be withdrawn into the person and used to inhibit and to put the brake on any attempt of libidinous outreaching. Eventually, it may be used for aggression against the self. The way is open for self-condemnation and the unfulfilled narcissistic needs reflect upon the ego, or as Freud put it "the shadow of the object has fallen on the ego."

Here we are facing a form of depression which did not originate through changes in the biologic foundation of the organism but which is the result of a dynamic re-organization within the organism. This person in his coping with the world has suffered losses and frustrations and as a result has cut himself off and forcefully turned his drive away. Such a depression, brought about not by autogenous causes but by experiences of the person, conforms more closely to the interpretation Freud gave to mourning and melancholia. This second type of depression which we propose to call the "Freudian type" has its origin then not in the biologic level of the organism but is the result of the life history of the patient. We can now conceive why precipitating factors are so much more prominent in this condition; be it the loss of the son, of the husband or wife, financial losses, social status, or the involutional period of life. Some intolerable situation, one difficult to accept or one that creates added tension will usually be found.

Furthermore, the Freudian type as a rule has an incubation period. Many families point out the gradual increase and momentum in the change of the patient's behavior in contrast to the oft times acute or subacute onset of the classic depression. The prodromal period of the manic-depressive psychosis is as a rule much shorter, although this is not meant to imply that it has to reach its depths overnight. We should like to indicate, however, that the classic depression often times fails to show that brooding period characteristic of the Freudian type in which mourning precedes melancholia. Also, as a group the Freudian types tend to last longer. The reports of pre-shock period all indicate the protracted course of this type. It is not uncommon to encounter, even in these days of shock treatment, cases coming to the attention of the psychiatrist after they have lasted some time, especially among the mild depressions. Nor should one lose sight of the change in prognosis which came about in the Freudian group as a whole since the introduction of the shock treatment. The Freudian type reacts particularly favorably to shock and it used to be a far graver illness than it is now. On a pure percentage basis, shock treatment may be said to have accomplished more for the involutional depression, for instance. than for any other mental illness.

The foregoing formulations are based on clinical impressions. The division here made is perhaps more sharply drawn than is generally expressed. The classic form of depression is in our opinion a primarily biologic mechanism, subject to environmental manipulation of biologic propensities, and overlaid by whatever psychological reaction the person takes to the awareness of that change in accordance with his previous personality. The Freudian type of depression is of a different order. It represents a dynamically induced change in the organization of the personality. The brake may be put on but the drive will continue to drag on the wheels and this constellation creates those specific clinical manifestations which we call, according to their particular aspect, agitation, tension, etc. The psychological elaborations have, of course, many similarities in both groups. Regardless of the type, the patients have difficulty in projecting themselves into the future without varying degrees of apprehension, fear, hopelessness, or despair. Also, ideas of unworthiness and self-condemnation will appear in both types, with the exception of some of the mild depressions.

Many of the so-called mild depressions belong in the group of the Freudian type. Others may represent attenuated forms of the classic type. In the latter case the patient is more likely to show a sense of inadequacy, loses his self-assertion and tends to be stale and cannot see the lighter side of life. He will indicate the "lack of life"

and up-hill nature of every effort he makes. A mild depression falling into the Freudian category often follows a prolonged state of tension. Unreality feelings, vague neurotic-like complaints, and fears are prominent, calling attention to bodily incompetence. In many cases one gains the impression that they are afraid or too weary to send out tentacles rather than that they withdrew their interests.

The position of the involutional melancholia among the Freudian types requires little further discussion. The ideas of bodily decay and the ideas of sin, destruction and self-accusation carry the earmarks of the involutional period on them. Narrowing in of the interests upon the more tangible aspects of life, a lessening of plasticity are a general feature of that age group. It is, therefore, not surprising to find them expressed in distorted and magnified forms by the depressed patient. Many patients of the involutional type show a revival of their aggression toward the environment under amytal. The occurrence of the first episode of illness at that particular stage of life in a particular personality and of characteristic clinical configuration made the involutional melancholia never fit snugly in with the manic-depressive depressions. The same holds true for the agitated and tension depressions. Here, too, one finds the differences between the two types in regard to personality, precipitation, onset and course. Here, too, is found the change from doubtful to good prognosis under shock treatment.

The reactive or neurotic depression might be separated from the psychoneurotic reactions, as they seem to fit better into the category of the Freudian depression. They are incomplete as far as the separation of the interest of a person from the world is concerned, involving only segments of the outside world and leave the rest of the investments of the person intact. As a consequence, the individual can still function socially.

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Hereditary Agenesis of the Ulnar and Median Nerves

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Klumpke's paralysis, in which there is involvement of the lower nerves of the brachial plexus, C8-D1, or C7-8-D1 is due to traction during birth or a more severe traction later in the development. It has also been caused by trauma to the brachial plexus by gunshot or stab wounds. In most instances it is unilateral.

An unusual etiologic factor, hereditary agenesis, is demonstrated by a family in which three members have bilateral agenesis of the median and ulnar nerves.

The present study involves a mother and two of her children (Fig. 1). The mother's parents were normal. Of her brothers and sisters, the second child was very obese and died at three years of age. The patient (Fig. 1, #1), the third child, was born prematurely at seven months. On the 11th day she had numerous convulsions. The fifth child died at 38 years, weighing 285 pounds. The family otherwise showed no abnormal hereditary traits.

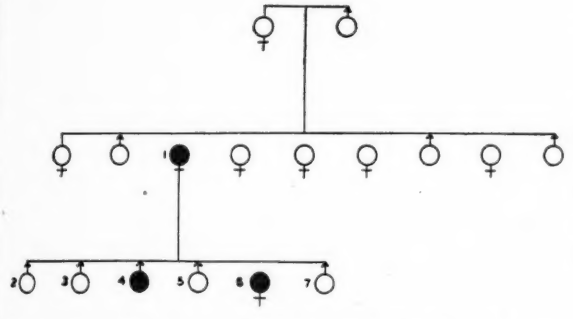


Figure 1. Agenesis of Ulnar and Median Nerves. (Hereditary.)

The mother, Case 1 (Fig. 1, #1) presented the following obstetrical history: The first child (Fig. 1, #2) was born by breech delivery by a midwife. It had a "broken neck" and an extra finger at the base of the fifth finger on each hand and died soon after delivery. The second child (Fig. 1, #3) was born prematurely at six months and lived thirty minutes. "Ever joint of the body was abnormal." With the next pregnancy the mother was threatened with miscarriage from the 5th to 7th month, after which the pregnancy appeared normal and the third child, Case 2 (Fig. 1, #4) had a normal delivery; no instruments were used. The fourth child (Fig. 1, #5) died at five days after a premature delivery at six months. The mother had elevated blood pressure and signs of pre-eclampsia. There was "a large amount of amniotic fluid present." The infant had two clubbed feet and the typical hands of ulnar and median nerve agenesis. (On Fig. 1 this case is considered as normal as it was not examined.) The fifth child, Case 3 (Fig. 1, #6) had an instrument delivery. The sixth child, Case 4 (Fig. 1, #7) had a normal delivery and was a normal child.

The numerous abnormalities noted in the above obstetrical history would lead one to believe that brachial plexus disturbances came about because of complications of pregnancy and delivery. This, however, does not account for the occurrence in two generations, which can best be accounted for by heredity. The trait probably started with Case 1. Her progeny demonstrates the dominant characteristic of the trait, with three, and possibly four, of the six children having the agenesis of the ulnar and median nerves.

Another hereditary trait is also found in this family. Case 1 had bilateral clubfeet. One child probably had clubfoot; another had one clubfoot.

Case 1 (Fig. 1, No. 1) was a fifty year old white female.

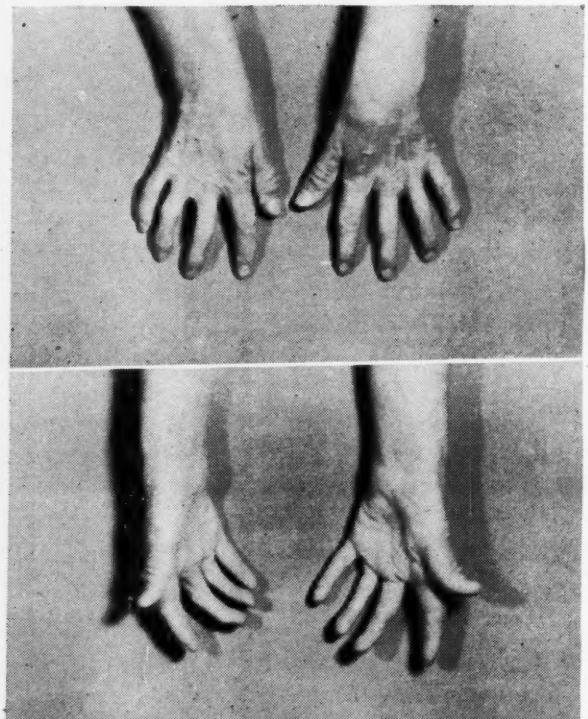
She was born prematurely at seven months. At 11 days she had numerous convulsions, which continued throughout a period of 48 hours. She has had none since.

Her family history was not remarkable except as noted above. No members of her family were known to have an abnormality of the hands or feet. She had had an operation for bilateral clubfeet at 3 months.

Blood counts and urinalyses were normal. X-ray of the pelvis, hands, and of the neck showed no bony abnormality.

On physical examination the upper arm was normal. There was no demonstrable atrophy of the forearm. There was slight atrophy at the wrist joint.

Radial Nerve. The extensors of the wrist, fingers and thumb were intact. The triceps muscle was intact. The ability to extend the forearm at the elbow was present. Sensation was present in the area of the metacarpal of the index finger and the metacarpal of the thumb. The ability of the patient to extend the fingers, thumb and wrist was examined with the palm of the hand placed flat on the table in order to prevent the use of other muscles and thus simulate the extension of the fingers.



Figures 2 & 3.

Median Nerve. There was marked paralysis and atrophy of the small muscles of the hand (Fig. 2 and 3). The thenar eminence was flattened and stood out like a bony knob over which the skin is tightly drawn. The result was the typical "ape hand" when placed flat on the table. There was paralysis of the flexor sublimis and lateral portion of the flexor profundus digitorum muscles evidenced by an absence of flexion of the index and middle fingers. On attempting to make a fist the index and middle fingers did not flex. There was no paralysis of the flexor longus pollicis, as it was possible for the patient to flex the distal phalanx of the thumb. Apposition and abduction of the thumb at right angles to the palm were impossible due to paralysis of the thenar muscles. (The one movement which cannot be imitated is the flexion of the terminal phalanx of the index finger, which could not be done by the patient.) The patient was unable to oppose the tip of the thumb to the tip of the little finger. On clasping the hands together it was obvious the patient was unable to flex the index finger bilaterally. The pronator teres, supplied by the highest branch of the median nerve, was paralyzed and complete pronation of the hand was not possible.

The area of loss of sensation to pinprick in median nerve lesions varies greatly. The large overlap of the intact radial nerve to the palm of the hand accounts in a large measure for this variation in sensory findings. It is interesting in this case to note there was no area of absolute loss to sensation on the hand or fingers. The inability to differentiate sharp and dull was definite on the terminal phalanx of the index and middle fingers.

There was no skin discoloration of the hand. There was no ridging or hypertrophy of the nails. There were no trophic ulcers and no scars of previous burns. There was no pain sensation.

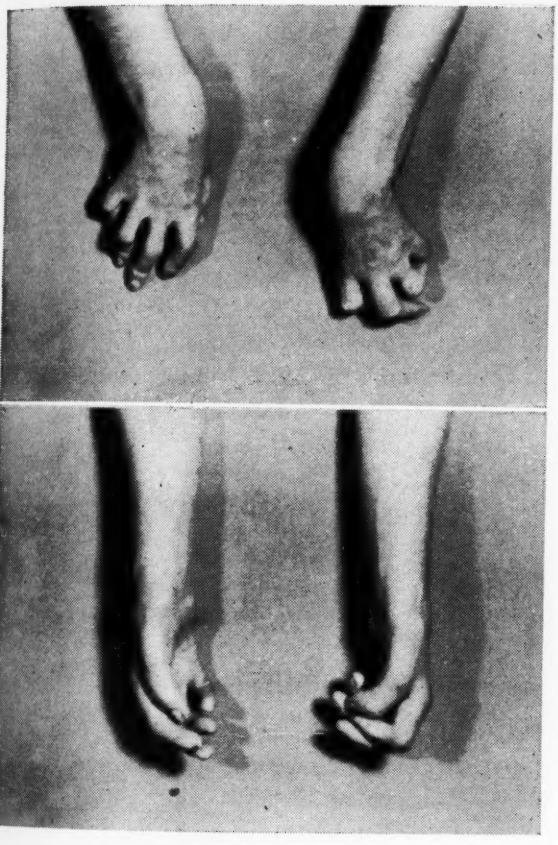
Ulnar Nerve. The patient was unable to flex the proximal or distal phalanges of the ring and little fingers; to abduct or adduct the fingers when they were extended; to adduct the thumb; to contract the flexor carpi ulnaris, or to abduct or appose the little finger. There was marked atrophy of the small muscles of the hand. There was atrophy of the first dorsal interosseous space along with atrophy of the other interosseous muscles, which gave the hand the appearance of being small. The hypothenar eminence was atrophied. The patient could not oppose the little finger to the thumb, nor could she form a cone with the fingers and the thumb. When a fist was formed the ring and little fingers did not flex. The patient was unable to grasp a paper firmly between the thumb and index finger without flexing the second phalanx of the thumb. The patient could not abduct or adduct the fingers with the palm of the hand flat on the table

or scratch the top of the table with the tip of the little finger.

Examination of sensation revealed no complete loss to the pinprick but there was a definite diminution in ability to differentiate between sharp and dull on the distal two phalanges of the little finger.

It was concluded from the above finding that the muscles and areas supplied by the ulnar and median nerves showed the changes characteristic of loss of these two nerves. The sensory changes were minimal. Apparently the radial nerve was so well developed that there was no loss to sharp sensation but only a loss of ability to differentiate between sharp and dull in the areas described above. By working diligently to overcome the handicap, the patient had acquired skill in the use of the hands.

Diagnosis: Agenesis of the ulnar and median nerves.



Figures 4 & 5.

Case 2 (Fig. 1, No. 4) was a twenty-three-year-old, white male welder.

The patient was born by a normal delivery. No instruments were used. The mother was threatened by miscarriage at five months. She remained in bed until the seventh month, after which she went to term normally. The mother noted the abnormal shape of the patient's hands immediately after delivery.

Examination of the blood showed a negative serological test for syphilis. The blood and urinalyses were normal.

Physical examination revealed high, longitudinal arches in the feet, but was otherwise normal except for the hands. The deformity in the hands was marked (Fig. 4, 5). The neurological findings were identical with those given in detail in Case 1.

X-ray examination of the hands revealed no bone abnormality.

His mental reaction was one of docile acceptance of his handicap, and he had not followed his mother's example in making the fullest use of the hands.

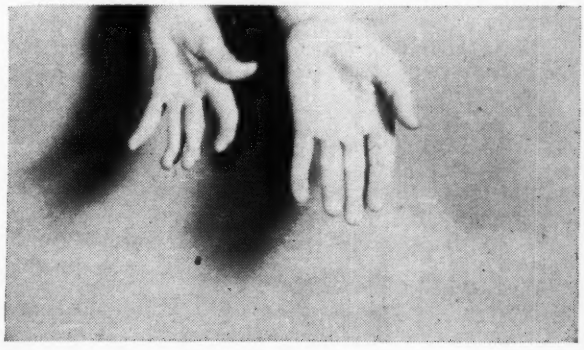


Figure 6.

Case 3 (Fig. 1, No. 6) was an eighteen year old, white female cashier (Fig. 1, No. 6). Her delivery was instrumental, but not considered abnormal. Her mother noted the characteristic deformity of the hands at birth.

Physical examination revealed no abnormality except those of the hands. (Fig. 6, showing patient's hand contrasted to normal hand.) Neurologically the findings were as in Case 1.

Blood counts and urinalyses were normal.

X-ray examination revealed no bony abnormality of the hands or cervical vertebrae.

Diagnosis: Agenesis of Ulnar and Median Nerves (Hereditary).

Case 4 (Fig. 1, No. 7) was a fourteen year old, white male student. His delivery was normal, without the use of instruments. His mother noted no abnormality of the extremities in this patient. During his childhood he had measles, chicken-pox. He had a tonsillectomy at 13 years. The patient had no complaints. Physical examination revealed a white male 61 inches tall and weighing 88 pounds. The systolic blood pressure was 106 and the diastolic was 60. The pulse was 82 and the temperature was 98°F. No abnormalities were noted. The hands appeared normal and on neurological examination the ulnar, radial and median nerves were found to be intact and functioning well.

The blood examination showed a negative serological test for syphilis. Blood counts and urinalyses were normal.

A diagnosis of "no abnormality" was made.

SUMMARY

1. Three cases, in two generations, of agenesis of the ulnar and median nerves are presented.

2. The etiological factor is apparently hereditary.

3. The findings are similar to Klumpke's paralysis.

4. The radial nerve has taken over the sensory function of the whole hand.

A Plan for Improving Treatment of Psychiatric Patients in General Hospitals

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Psychiatry has emerged tardily from the darkness of the past. Too slowly has the psychiatric patient been led from the isolation and mystery of the mental hospital to take his rightful place in the clean and healthful scientific air of the modern hospital. This delay was due to the intangible features of mental disease. Progress was retarded by superstitions, sometimes unfavorable religious influences, and even the courts. In some states admission of a mentally ill patient to a hospital must go through the stages of commitment and a "lunacy inquest" conducted by the state court. It is astounding that in the twentieth century, with the tremendous progress in medicine, sick people must be subjected to a lunacy inquest, be "branded" by commitment and court papers, when the majority could be helped by the modern scientific methods available in the general hospital. Nor have general hospitals been entirely without guilt in the neglect of this important problem.

Modern medicine has a broad interest in the patient as a whole. The tubular vision that narrowed the medical approach to consideration of one disease or one organ or function of the body was condemned 2500 years ago by Plato, "For the fault of the medicine of our time is the tendency to separate the mind from the body." This tendency reappeared during the past century because of dissection methods which sharply separated certain regions, because of physiologic procedures which often studied isolated functions, and because of methods of physical diagnosis which differentiated sharply between the organic and the functional. The individual procedures had separated the parts of the body and the specific functions and then forgot to put them together again.

It is to the credit of psychiatry, reflected in the teachings of psychosomatic medicine, that it views the patient as a whole, correlating mind and body, fears and failing function, man and his environment, and recognizing that the strivings and failings, the hopes and heartaches, the emotions and delusions, influence bodily activity and produce physical symptoms. It is equally true that bodily changes and physical disease directly cause or indirectly contribute to behavior disturbances and mental symptoms. Let us glance at some of the psychiatric problems that confront the general hospital today.

Psychiatric Problems Within the Scope of the General Hospital

A general hospital cannot possibly avoid the responsibility of caring for certain types of mentally sick patients. A survey made in a large general hospital, of patients who presented significant mental problems yielded the following interesting observations: Whereas 25% of such patients had

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been referred to the hospital specifically for psychiatric reasons, some 75% had been admitted to the hospital primarily because of bodily disease. To mention a few examples: there were patients who developed delirium in the course of a fever or because of drugs; there were cardiac patients who became psychotic; even the surgical and obstetrical wards were not exempt: occasional patients developed postpartum and postoperative psychoses. More common were older patients who were confused and disoriented, while hysterical illnesses, depressions, and even schizophrenic disturbances had been admitted to the hospital as medical problems.

Many patients with obvious mental illness are "dumped on the threshold of the general hospital." Hardly a day goes by in which there is not brought to the emergency room a patient who has taken an overdose of sedatives, swallowed poison, or inhaled gas. The emergency room has served the community well in restoring to consciousness by prompt life-saving measures some of these patients found in a state of coma or shock. Yet too often these unfortunate individuals have been dismissed upon completion of first aid measures, dismissed to helpless families who are unable to prevent the next and perhaps fatal suicidal attempt. The general hospital has the opportunity of going beyond emergency care.

Patients brought to the hospital with a head injury are likely to exhibit all forms of acute mental disturbance, ranging from states of stupor to periods of confusion and delirium. Patients with syphilis of the nervous system are admitted to general hospitals for diagnostic studies and for treatment. It is not rare for an acute mental disturbance to develop as a result of syphilitic meningitis, brain hemorrhage, or paresis. Hospitals as a rule accept such patients and have done splendidly in helping them to recover. This enlightened attitude is due to some extent to the proved value of malarial fever therapy. Today the combined use of penicillin and fever therapy more than ever warrants the admission of such patients to general hospitals.

In addition to the above illnesses in which mental symptoms are fairly common, there are other medical and surgical conditions occasionally complicated by psychiatric problems. We may mention cerebral hemorrhage, exophthalmic goiter, brain tumor, pernicious anemia, and multiple sclerosis.

Aside from the major mental disturbances, there is the larger group of psychoneurotic patients. They are regularly admitted to all hospitals with the common complaints of headache, difficulty in breathing, palpitation, indigestion. Such cases have previously been accepted in the general hospital, and no doubt will continue to receive the benefits of thoroughgoing diagnostic surveys and treatment. Experience has shown that such patients are far better treated by a competent internist who is concerned with the personality of his patient, or by a trained psychiatrist than by any drastic physical or surgical methods.

Medical Approach to Psychiatric Patients

The marked advances during the past decades have made it possible to bring the psychiatric patient out of the secrecy and isolation of the "insane asylum" toward the open wards and healthful atmosphere of the general hospital. This step is practical because such patients deserve and are benefited by diagnostic studies and medical procedure similar to those which have been used for the average medical patient.

A physician who examines a psychiatric patient does not stop at an interview limited to mental status, but includes a thorough evaluation of his physical status and even a battery of laboratory tests. The physician frequently desires skull films to rule out brain tumor or evidence of previous trauma or inflammation. A spinal fluid examination may be necessary to rule out syphilis of the nervous system, for instance, which may cause all forms of mental symptoms. Everyone appreciates the importance of blood tests not only for syphilis but also for pernicious anemia and other blood dyscrasias. Chemical tests, such as examinations for bromides in the blood or a search for lead in the urine, are desirable in some instances. Not long ago I saw at my office a patient with failing memory, confusion, loss of interest, and peculiar ideas. The examination

showed a dull, somewhat pale, drowsy individual with staggering gait and confused mind. He was to have been placed in a private sanitarium where unfortunately the laboratory facilities were few. It was possible, however, to admit this man to a modern general hospital with which is connected a splendid, well staffed, and well equipped laboratory. A study of the blood bromide level revealed evidence of bromide intoxication. Prompt treatment guided by the results of this study brought about early recovery.

Tests of basal metabolism can help differentiate the nervousness caused by an overactive thyroid gland from that of a psychoneurosis. Even more important are studies of brain waves, which may aid in the differential diagnosis of states of stupor, convulsions, and other pathological conditions. From the diagnostic standpoint, an acute mental illness is no different from any other acute medical problem.

Medical methods can also be applied in treating mental illness. A thorough diagnostic program is a valuable prelude to therapy. The clinician who has carried out a comprehensive examination utilizes the results of his tests as tools of psychotherapy. Sometimes the procedures of a carefully conducted examination and negative findings themselves help the patient towards recovery. In more difficult cases the psychiatrist can proceed with better assurance when he knows that the rapid pulse or weight loss are not the results of heart disease or tuberculosis. This assurance radiates from physician to patient.

Acute psychoses caused by toxic agents are now successfully treated by intravenous medication. Indeed, Strecker and his coworkers have reported remarkably speedy recovery in many forms of delirium achieved by the intravenous administration of saline, glucose, insulin, and thiamin chloride. Patients who in the past required long restraint or prolonged care in institutions can now be restored to normalcy in a matter of days by modern techniques. Delirium from alcohol, drugs, and heavy metals can thus be adequately handled in the general hospital.

The large group of cases exhibiting some form of severe depression, including those labeled involutional melancholia, formerly required prolonged periods of custodial care in a mental institution. Today, electro-coma (shock) therapy brings about a return to well-being in a matter of weeks in over 90% of such patients. The change that can be wrought in a short time is almost magical. The patient is admitted sad, trembling, sighing, wretched, and sleepless. He moans and paces and speaks of morbid thoughts. A brief series of shock treatments is administered, and in a week or two a remarkable change takes place. The patient beams joyously, speaks in a happy voice of his sound sleep, his splendid appetite, and his will to live. Such treatments can be readily administered in a general hospital, as has been demonstrated repeatedly in various progressive institutions in our country.

It may be possible also to treat in a general hospital certain individuals with schizophrenia, after the diagnostic period has been completed. They require a longer course of shock therapy and may need closer observation and a greater amount of nursing care. The selection of schizophrenic patients will be determined by the prospects of recovery.

Other methods of treatment such as the use of sodium amytal in hypnosis, suggestion, and prolonged narcosis may be carried out successfully in a general hospital.

As we speak of the possibility of successful treatment of psychoneurotic and psychotic patients in the general hospital, we must not become over-optimistic and lose sight of the fact that difficulties will be encountered. Patients whose illnesses appear to be of a chronic nature may be better off in a mental hospital after the diagnostic phase is over. Assaultive and disturbed patients may likewise have to be transferred. Yet the fact remains that a substantial number of the mentally ill could be handled in a general hospital.

Benefits of General Hospital Care

A feeling of hope pervades the atmosphere of the general hospital. The patients are spared the stigma that still surrounds confinement in a mental hospital. This applies particularly to those patients whose admis-

sion to a state hospital requires commitment and court order. Even after the patient has been discharged from the mental hospital he has the feeling that there is a stain upon his record. Such a stigma is a relic of the past, a residual of the time when mental illness belonged to the courtroom. Today the mentally ill are entitled to the hope that comes from the hospital or clinic.

There would be other lesser gains. A patient who has Blue Cross insurance would be covered by its benefits, while such protection may not be given him in a state or private mental hospital. Then, too, the patient would be treated in the city where he would be accessible to visitors if indicated. Most private and state institutions, on the other hand, are relatively far away from the centers of towns. He would be treated not only by the psychiatrist, but could have the consultation of neurosurgeon, orthopedic surgeon, and other available specialists.

In addition to the benefits to the patient and his family, the diagnostic and laboratory procedures would provide better training for house physicians, visiting medical colleagues, nurses, and other staff members. *Familiarity with the handling of the mentally ill breeds confidence in those who treat them.* It is amazing how the fear and uneasiness in the presence of psychiatric patients changes to ease and confidence after a few experiences with them.

How Can These Goals Be Achieved?

It is possible in many general hospitals to attain these goals within the framework of the present buildings and without a major increase or change in personnel:

1. *Attitude.* The first consideration is a positive, hopeful attitude based on the knowledge that the psychiatric case can be helped. *Good results justify a program of doing rather than dreading,* a feeling of confidence, not consternation; such a spirit acquired by the administrative heads will radiate to the lowliest attendant and be reflected in the improved care of the mentally ill.

2. *Personnel.* A psychiatrist to guide the program. The psychiatrist assigned this task should be one brought up in psychiatry yet cradled in the wards of general medicine, who is familiar with medical methods and who talks the language of the internist. A nurse or several nurses sympathetic toward the mentally ill and trained in their treatment are vital to the program. Additional staff such as occupational therapists and psychiatric social workers may be needed depending on the size of the hospital and the needs of the patients. A psychologist can help considerably for, as Dr. Menninger once remarked, "The psychologist is as indispensable to the psychiatrist as the laboratory technician is to the internist." Thus the combined work of psychiatrist, psychologist, nurse, and occupational therapist, will lead to accurate diagnosis, better treatment, and therefore better results.

3. *Physical Set-Up.* Many patients, particularly psychoneurotic and mild depressed cases, may be hospitalized and treated in any of the medical wards of the general hospital; it is not necessary to isolate them. For more disturbed patients and particularly for those who have entered on the medical and surgical wards but who become psychotic, other provisions are necessary. A ward or perhaps a wing of a ward is advisable. This portion of the ward may consist of 8 to 16 rooms depending on the size of the hospital. It should have a large porch or sunroom which can be used for recreational activities. One or two rooms should be sound-proofed for the possible noisy, disturbed case. A large bathroom can be converted into a hydrotherapy unit. Windows may be safeguarded by the simple device of restricting the extent to which they can be opened or by other safety measures. Such a ward is preferably on a lower floor, should have access to an outside garden or yard if there is such a spot on the hospital grounds. In larger institutions, more space, even several wards, will be needed.

4. *Treatment Schedule.* Treatment can be carried out for most patients; they need not be left idle under custodial care only. Diagnostic tests may be done in the morning and when these are completed, positive treatment methods such as intravenous therapy for toxic psychoses, narcosis treatment for some patients, insulin and electro-coma therapy for others, may be used. Practically all

patients will then be busily engaged in the morning. Psychiatric interviews, psychological tests, and conferences can be arranged for the afternoon.

5. *Activity Program.* In addition to the diagnostic and therapeutic measures by the medical staff, a program of occupational therapy can be arranged. Those patients who are physically and mentally able to participate, and this means most of them, may be given a schedule including calisthenics, knitting and needlework for women, leather and woodcraft for men. One room or a porch or wing can be used for this purpose. Such recreation as card playing and outdoor activities, if there are suitable facilities, should be encouraged. In the evening a musical program by radio or group singing around the piano may be planned. All patients may read, play cards, or visit with each other. Those in charge should encourage socialization and participation. It is probable that a successful program started on this "health ward" will be followed by similar activities on other wards.

6. *Educational Program.* To improve the quality of the treatment and to invite the cooperation of other physicians, it is the duty of the psychiatric staff to lead an educational program. They may give demonstrations and conduct clinics which will help other members of the medical and nursing staffs to become acquainted with psychiatric methods. There should be seminars for teaching and training, seminars to interest and instruct house physicians and the nursing staff, and lectures to attendants. This program will educate the staff and inspire them to a higher level of performance; it should interest other people in the hospital in the neglected field of psychiatry.

7. *Other Features.* At first glance this program may seem to require a large staff. To reduce this need and, if possible, to lessen the hazards among psychiatric patients, we may install a policy of mutual help among patients. It has been my custom to group patients in pairs, suggesting to the better or improved patients a certain responsibility and protection for the new or sicker ones. I refer to this as the "buddy system," a term which is used for the mutual self-help of two youngsters who are going swimming. Each one learns and has a good time, yet each is entrusted with the responsibility of keeping an eye on his buddy. This system proves beneficial in a practical way. The improved patient has a feeling of satisfaction and ego elevation when he is asked to sponsor and direct a timid, trembling newcomer. The responsibility of being the protector and leader inspires him to look after his special charge, to comfort and encourage, rather than think about himself. The freshman has a sense of comfort in that he has someone to whom he can talk, to whom he can turn for encouragement. Later, he in turn will guide another patient who needs such help. Such mutual assistance may reduce the danger of self-harm inasmuch as the buddy is also an observer who will notify the nurse of any downward change in the condition of his companion. At first glance, the choice of buddies may appear to be difficult, but it need not be; for if two patients assigned to the same room disturb rather than help one another, a change can readily be made. The assignment need not be formal, but can be handled diplomatically by the psychiatrist in charge or the head nurse.

This program of helpfulness need not be confined to the buddy system, but includes also the encouragement of patients to take the lead in instructing and entertaining their fellows. Practically every mentally ill individual possesses normal capacities and may have ability to paint, draw, sing, do fine needlework. Such patients are happy to share their ability and to instruct others.

8. *Continuity of Follow-Up Care.* For hospitals with out-patient clinics, there will be a free exchange of information between the clinic and the hospital and a smoother continuity; perhaps the same staff of physicians and social workers who have treated the patient in the hospital will observe him in the follow-up period. The mentally ill patient who is treated in a general hospital can be seen by his or her family physician during the period of hospital treatment, and this physician will thus be better prepared to take over when the patient is ready to return to his home.

Relationship Between the General Hospital and Existing Psychiatric Facilities

The above program of diagnostic and therapeutic measures applies primarily to the early case—the acute case. The general hospital is not the place for prolonged custodial care of the chronic psychiatric case any more than for the chronic medical case. Unfortunately there are always a certain number of patients whose illnesses are chronic and progressive. There are many instances of schizophrenia beginning in late adolescence and continuing onwards with or without remissions as a lifelong incapacitating illness. Then there are senile cases and others with degenerative brain pathology whose symptoms run on and on until terminated by death. Such patients, of course, when the diagnosis is settled, can benefit little from care in a general hospital and can be just as well or even better taken care of in the existing private and state institutions. They require long-term residence in a protected environment, relaxing on the wards or walking on the grounds of such an institution.

There are many splendid private hospitals, beautifully situated, with golf courses and swimming pools, to which the subacute case or the chronic case of means may be transferred. If such hospitals also have adequate staffs and diagnostic facilities, admission to a general hospital may not be necessary even for certain acute cases. Where these facilities and staffs are not available the acutely ill mental patient needs the general hospital at least for an initial diagnostic survey. The majority of cases can be considerably benefited or brought to a state of recovery in a general hospital. Only the chronic patient need be referred to the state hospital.

Conclusion

Modern medicine does not stop with the consideration of sickness but faces the problem of the man who is sick. It recognizes the importance of the total picture, of man's endowments, of the struggles within himself and with his environment, and of the extreme importance of this total picture in the cause and cure of illness. The advances of psychiatry in recognizing this relationship have been remarkable. The advances in treatment of maladjustments and of more serious mental illnesses have been even more significant. Such advances should be made available to a larger number of patients. The general hospital is the ideal center for the distribution of these gains to psychiatric patients and it is feasible to initiate a program of improved and broader psychiatric care in many of our general hospitals. The first requirement is a wholesome and hopeful attitude on the part of the administration. This attitude can be translated into action by personnel trained in psychiatry, assisted by a nursing and occupational therapy staff. A few changes made on one of the wards can provide the physical requirements. A treatment schedule employing newer techniques of shock treatment, interviews, and activity, following a thorough diagnostic study, can readily be put into effect. A program of educational and training lectures will spread knowledge of psychiatric treatment to all those who come in contact with patients. The striking improvement resulting from this new approach will benefit patients, families, and hospital staff. This program will do a great deal toward inspiring hope and removing the horror which now prevails among the public. "Acquire hope, ye who enter here," may well be the spirit and the slogan of the psychiatric ward of the general hospital.

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Need for Objective Description of Clinical Status in Treatment Research

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What therapies are most effective for the various functional disorders? This question has long been a pressing one to psychiatrists and will become even more important as new treatments are developed.

The solution to this problem requires careful experimental planning and the use of control groups and appropriate statistical techniques. Perhaps the most important requirement, if the relative values of different treatments are to be validly determined, is that treatments be investigated repeatedly with comparable groups and results be reported in comparable terms.

Unfortunately, standard means for describing research populations and their degree of clinical improvement have not yet been established. As a consequence, experimental investigations of treatments have been handicapped. It is difficult for the psychiatrist to build up equated research groups either for the purpose of determining the degree of superiority of a treatment over routine hospital care or for determining the relative value of two different treatments. The estimation of differences in clinical improvement between research groups is also beset with difficulties. Even the evaluation of a single treatment administered to a single diagnostic group by different investigators has become an uncertain task. Jessner and Ryan,[1] for example, note that the statistics of insulin treatment as reported in the literature for schizophrenia vary from 70% recovery to 20% improvement, while some studies find even poorer results than in untreated cases. Such widely divergent results are difficult to reconcile so long as research groups, bearing the same descriptive labels, vary to an unknown extent in initial clinical status or subsequent degree of improvement.

It seems that sound experimental studies of treatment in the functional disorders must first rest upon firm descriptive foundations. The present paper, therefore, will be devoted to

1. an analysis of present day description of clinical status in treatment research,
2. a tentative formulation of the salient features of a desirable descriptive system, and
3. a brief statement of the role clinical psychology can play in contributing to the development of such a system.

PRESENT DAY DESCRIPTION OF CLINICAL STATUS

Perhaps the most basic type of study in treatment research is one designed to determine the degree of superiority of a therapy over routine hospital care. Such a study must meet at least two major requirements; first, its experimental and control groups must be comparable and second, standards for assessing clinical improvement must be the same in both groups. Obviously, similar requirements would hold for studies designed to determine the relative values of two different treatments or when different psychiatrists wish to compare validly results obtained with the same treatment. Let us examine these requirements more closely and the extent to which present day methods of describing clinical status help fulfill each of them.

Describing Research Populations

Experimental and control groups, to be comparable, must be matched as closely as possible for (1) capacity for spontaneous improvement (or prognostic outlook) and (2) qualitative status. The efficacy of a treatment is measured in terms of the degree to which improvement under this treatment exceeds the degree of spontaneous improvement to be expected with only routine care. Consequently, if experimental and control populations are to be compared with respect to recovery rates, they ought to be initially comparable in their capacity for spontaneous improvement. Also, if the value of a given treatment for a given type

of patient is to be determined validly, both control and experimental groups must equally represent the qualitative status in question.

Capacity for spontaneous improvement. Various symptomatological features (process symptoms, atypicality, elements of confusion, etc.) and background factors (duration of illness, type of onset, pre-psychotic personality, etc.) are related to capacity for spontaneous improvement.[2,3] In most studies, however, the prognostic outlook of treated groups is defined solely in terms of diagnostic category, duration of illness, or both. Although diagnoses bear some relation to prognosis, their limited reliability and validity to be discussed in the following section make them unsuitable indices of capacity for spontaneous improvement. Duration of illness, the single background factor most commonly used for designating prognostic outlook, can be considered no more satisfactory. Although there is considerable agreement concerning the relation between duration and outcome of illness, this relation is insufficiently reliable in the individual case. For example, Hunt, Feldman and Fiero[4] found no improvement in 45% of 166 schizophrenics ill for less than six months, while improvement occurred in 25% of 330 cases with more than 18 months duration. It should also be noted that the estimation of duration of illness, based as it is on information obtained from relatives and friends, is frequently undependable and at best only approximate.

Qualitative status. Research psychiatrists describe the qualitative status of patients under treatment chiefly in Kraepelinian diagnostic terms. Kraepelin's classification, although it originally tended to clarify the definitions of the functional syndromes, at present lacks sufficient reliability and validity for satisfactory coordination of research. Diagnostic criteria vary markedly from one hospital to another and from one psychiatrist to another. For example, Boisen[5] comparing the relative number of schizophrenic subtypes in Illinois with hospitals in other sections of the country found that whereas in Massachusetts 30% of the newly admitted schizophrenics are classed as catatonics, Illinois has only 2.7%. On the other hand, whereas Illinois places 45% in the hebephrenic group, Massachusetts finds only 15.5%. Myerson[6] points out that even when psychiatrists agree as to what constitutes a specific mental disorder they may still make inconsistent diagnoses because of the difficulties in correctly recognizing criteria symptoms (e.g., negativism, resistiveness, apathy) when they occur in individual cases. The consequent unreliability of diagnoses limits to an unknown extent the comparability of patient groups, particularly those treated by different investigators.

A description of the patient's qualitative status, to be most valid, must include all the patient's clinical trends and their relative intensities. Kraepelinian diagnoses, however, are not sufficiently refined for such comprehensive description. Functional psychoses frequently represent a mixture of schizophrenic and affective elements. Yet many research workers, treating the major functional psychoses as if they were demarcated entities each with its own pathology, ignore secondary clinical trends and force the case being considered into one or the other major classification. They then consider, at least for research purposes, all cases under the same label as constituting a homogeneous disease entity. Referring to this procedure, Cameron[7] states:

> "Most of the confusion and the contradictions in the literature on functional psychoses can be traced to the wholly unjustifiable practice of treating the heterogeneous mass of major depressive and manic disturbances as if they really constituted a single illness, Kraepelin's 'manic-depressive insanity,' and of lumping together the schizophrenic disorders likewise as a homogeneous disease entity as though it were as uniform as chicken-pox."

The tendency to classify patients into one discrete category or another obscures not only the qualitative mixtures in clinical trends but also their relative degrees of manifestation. For example, one patient diagnosed "schizophrenia, catatonic type" may exhibit marked catatonic features, moderate paranoid trends and traces of hebephrenic symptoms, while another similarly classified patient, although equally catatonic, may be less paranoid and more hebephrenic. Gross, ungraded diagnostic terms conceal these

sometimes significant differences in symptom intensity. Yet investigations have clearly indicated that individual differences in most psychological traits are distributed on a graded and continuous scale. Undoubtedly, most psychopathological trends are similarly distributed. Terms already exist for describing gross degrees of mania and depression, but these are rarely used to describe research groups. Furthermore, no equivalent terms of gradation exist for schizophrenia. Obviously, lumping patients together under the same diagnostic label who vary in the relative strengths of their clinical trends tends to obscure further their qualitative status.

Describing Clinical Improvement

If recovery rates are to be validly compared, the same standards of clinical improvement must be applied to the different research groups under consideration. Unfortunately, the improvement categories customarily employed vary in use and meaning from one investigator to another. The term "improved," for example, has been used in one study[8] to mean symptom amelioration plus ability to adjust in the outside community, while in another investigation[9] it was applied to patients showing symptom amelioration *without* the ability to adjust on the outside. In some studies[9] the patient is classified as "recovered" if he returns to his prepsychotic status, while in others it is also required that he develop insight regarding his illness.[10,11] Some psychiatrists do not consider any of their patients capable of recovering from schizophrenia.[8]

Judgments of clinical improvement lack not only a standard terminology but also objective methods of derivation. Their reliability and validity are therefore doubtful. Cohen, Malmo and Thale[12] appear to recognize this when they state:

> "The lack of acceptable objective methods of evaluating the nature and changes of activity in mentally ill patients is probably one of the greatest obstacles to the valid interpretation of psychiatric data. The usual clinical judgments of 'improved,' 'unchanged,' or 'worse' are too frequently derived from anecdotal data, offered by ward nurses and attendants. It is true that much ward personnel has the inestimable advantage of observing given patients for prolonged periods. But it must be admitted that, failing checked objective methods of observation, their opinion (necessarily a composite one) may be formed in a quite capricious fashion."

A valid statement of changes in intensity of disorder would obviously depend upon adequate descriptions of qualitative status both before and after treatment. Unfortunately, the difficulties that apply to present day description of initial qualitative status obtain equally in describing changes in status.

OUTLINE OF A DESIRABLE DESCRIPTIVE SYSTEM

From the foregoing analysis it seems clear that many of the difficulties involve in the evaluation of a treatment's efficacy can be traced largely to the lack of objective, standard descriptions of clinical status. This lack stems from the emphasis of present day descriptive methods upon crude, discontinuous categories instead of well-defined, measurable variables. True, the rough qualitative mapping out of the functional syndromes was a necessary stage in psychopathology, but the time now seems ripe, and the need urgent, for attempting a transition to more precise, objective and possibly more fundamental modes of description. Such a desirable descriptive system would involve the following procedures:

1. The functional disorders would be described by a minimal number of clearly defined, qualitative components (or dimensions) of abnormality. (It is assumed that such basic variables can be isolated. Studies supporting this assumption were presented in an earlier paper.[13] Future research must decide whether these components would be identical with present day syndromes or with more fundamental underlying variables.)

2. These primary components would be elicited and measured by objective psychological tests.

3. Analysis of clinical status would require measurement of each component.

4. Both capacity for spontaneous improvement and qualitative status would be described in terms of *cross-sectional* patternings of the same component strengths.

5. Clinical improvement would be de-

scribed in terms of *longitudinal* changes in these patterns.

In such a multidimensional system, the descriptive questions would not be merely: "Is the patient schizophrenic or manic-depressive, or is he in a partial or full remission?" Rather they would become: *"To what extent does the patient exhibit each of the basic components of functional disorder, and how do his present component strengths compare with what they were before treatment?"* This comprehensive mode of description would automatically indicate capacity for spontaneous improvement, better provide for "mixed" syndromes and relative intensity of clinical trends, and would lay a more accurate and reliable basis for defining clinical improvement.

PSYCHOLOGICAL MEASUREMENT OF CLINICAL STATUS

Clinical psychology, long concerned with the problems of exact measurement, may be of considerable aid in identifying and measuring primary components of abnormality. Psychological testing and methods of "psychostatistical" analysis appear to be particularly promising and appropriate tools for attacking this problem.

The essential features of psychological testing are: (1) the devising of standard situations considered representative of broader areas of behavior, (2) the quantitative measurement of individual differences in reactions to these situations, and (3) the comparison of the individual's performance with previously established norms. According to Hollingworth,[14] Kraepelin himself was much concerned with replacing vague, subjective judgments by precise, objective records of performance elicited under controlled conditions. Although he recognized the significance of the more complex aspects of personality, he preferred to limit his studies to functions he could measure, such as work capacity, learning rate, retentivity, etc. Since the Wundtian psychology of Kraepelin's time, however, advances in testing theory and technique have opened up the prospects of extending Kraepelin's admirable experimental program to include the deeper, more complex aspects of abnormal behavior.

Comprehensive summaries of the literature dealing with the application of psychological techniques to the psychiatric disorders can be found in Hunt,[15] Hunt and Cofer,[16] and Brody.[17]

"Psychostatistical" analysis refers to those factorial methods which have been developed for deriving from many measures the minimal number of variables necessary for description of behavior. The investigator who hopes to derive an exact and systematic description scheme is confronted at the outset with a bewildering variety of clinical symptoms. Developing objective tests for each of these symptoms would be an almost insuperable task. Therefore, he may reasonably inquire: How can abnormality in the functional disorders be described most economically? Are some symptoms more basic than others? Or do certain fundamental variables exist which underlie all these diverse symptoms? The various methods of factor analysis may provide a fruitful approach to these problems.

In a previous paper[13] the author surveyed a number of promising studies involving psychological tests and "psychostatistical" methods with a view to evaluating their contribution to the development of a more useful and objective descriptive system. The conclusion was reached that such a system could be achieved by means of a research program which, in its simplest outlines, would involve the following steps:

1. Testing a large representative group of functionally disordered patients, upon admission and also after six months of routine hospital care, with a test battery sampling a wide range of behavior variables.

2. Rating this patient group before and after the six-month period on a large number of symptoms, ward behavior items and background factors.

3. Determining "psychostatistically" the basic variables underlying the intercorrelations among tests and ratings.

The coordinated design of the above research plan would permit not only investigation of basic variables, but also supplementary attacks upon the problems of objective measurement of prognostic outlook and of clinical improvement. New de-

velopments in the field or individual circumstances may require appropriate modifications in this design of research.

By employing psychological tests and "psychostatistical" methods in organized research programs a frame of reference may be eventually derived within which functional disorders could be classified and scaled. Once fundamental dimensions of deviation are discovered, we may then standardize objective tests for eliciting and measuring each of these dimensions in any given patient. Each patient would thus be described by a set of scores assigning him his quantitative status with respect to each variable. Such a descriptive system would conceive of functional abnormalities not as discrete psychiatric categories, but as patterns of relatively independent, numerically graded components.

The program outlined above will obviously require many years of concerted effort on the part of both psychiatrists and clinical psychologists for fulfillment. Yet the problems attacked are of such a fundamental nature that the time and effort would be well spent. It is therefore suggested that investigators interested in these basic questions unite their efforts on a long range research program, submitting test results, ratings and background data on subjects from different parts of the country into a common pool for joint statistical analysis. As sound descriptive foundations are established, the frequencies of successes and failures for different treatments will be stated and compared with ever greater confidence. The values of various therapies will be more adequately determined. The way will be open to the establishment of statistical prediction tables listing in order the efficacy of treatments for different types of patients—an achievement which will raise psychiatric treatment to new heights of effectiveness.

AUTHOR'S NOTE: This paper is an abbreviated version of an earlier article by the author, "Objective Measurement of Clinical Status in Psychopathological Research," Psychological Bulletin, 1946, 43, 240-258. Permission has been granted to reproduce material from that article.

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